SOUTHERN ENVIRONMENTAL LAW CENTER

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VIA EMAIL AND U.S. MAIL

Ms. Lisa Palmer
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Re: Draft Consent Order, *State of North Carolina* ex rel. *N.C. DENR, Division of Water Quality v. Duke Energy*, 13 CVS 4061 (Wake Co.) and 13 CVS 9352 (Mecklenburg Co.)

Dear Ms. Palmer:

On behalf of the Catawba Riverkeeper Foundation, Inc. (the "Foundation"), we submit the following comments on the Draft Consent Order noticed for public comment by the North Carolina Department of Environment and Natural Resources ("DENR"), Division of Water Quality ("DWQ"), as it relates to the action filed against Duke Energy Carolinas, LLC ("Duke") for Duke's illegal groundwater pollution and unpermitted seeps from its Riverbend Steam Station ("Riverbend") coal ash lagoons into Mountain Island Lake ("the Lake") on the Catawba River.

As set forth below, the proposed settlement contravenes numerous legal requirements and cannot be approved because it fails to require any action to stop the documented, illegal pollution from the Riverbend coal ash lagoons.

I. General Comments

Mountain Island Lake is the drinking water supply reservoir for 860,000 people in the Charlotte region. Duke's coal ash lagoons loom 80 feet above the banks of the Lake and contain 2.7 million tons of wet coal ash held back only by leaking earthen berms. The unlined lagoons leach coal ash pollutants into the groundwater and leak streams of contaminated water that flow into the Lake.

The Foundation's sampling has revealed that the unpermitted streams of contaminated water, referred to as "seeps," flowing from the coal ash lagoons into the Lake are discharging substances that include:

- Arsenic at least twice the standard,
- Cobalt at 52 times the standard,
- Manganese at 128 times the standard,
- Iron at 27 times the standard,
- Boron in excess of the standard,
- Barium,
- Strontium,
- Zinc

Many of the seeps are bright orange or brown from high levels of oxidized iron and other contaminants.

Duke University scientists have recently documented significant coal ash pollution of Mountain Island Lake. In a study that sampled shallow pore water from the lake bottom, the Duke University scientists found arsenic concentrations of 240 ug/L in the drinking water supply reservoir downstream from the Riverbend lagoons. That is 24 times the maximum contaminant level of 10 ug/L set by the state and the U.S. Environmental Protection Agency ("EPA"). Laura Ruhl, Avner Vengosh, *et al.*, *The Impact of Coal Combustion Residue Effluent on Water Resources: A North Carolina Example*, Environmental Science & Technology 12,226, 12,231 (2012) (Attachment A). The study also found that arsenic, manganese, and iron discharged from the Riverbend coal ash lagoons can erupt from the lake bottom into the surface water during periods of low dissolved oxygen in the summer months. *Id.* at 12,230. During such an event, the erupting arsenic is converted from arsenate to a more toxic form, arsenite. *Id.*

On May 24, 2013, DENR filed a verified complaint with the Mecklenburg County Superior Court in which DENR stated under oath that Duke's unpermitted discharges to Mountain Island Lake violated state law and that these seeps and groundwater violations "pose[] a serious danger to the health, safety and welfare of the people of the State of North Carolina and serious harm to the water resources of the State." Verified Complaint & Motion for Injunctive Relief, *State of North Carolina* ex rel. *N.C. DENR, DWQ v. Duke Energy Carolinas, LLC*, No. 13 CVS 9352 (Mecklenburg Co., May 24, 2013), at ¶ 67. As a result, DENR asked the court to enter a permanent injunction requiring Duke "to abate the violations of N.C. Gen. Stat. § 143-215.1, NPDES Permits and groundwater standards" at Riverbend. *Id.* Prayer for Relief ¶ 2.

In addition to the documented pollution of Mountain Island Lake with arsenic and other coal ash constituents, the continuing risk of a spill or collapse of leaking earthen berms holding back the 2.7 million tons of wet coal ash poses a serious threat to the drinking water supply, the Catawba River in North and South Carolina, and the residents of Mountain Island Lake. The 2008 TVA coal ash spill in Kingston, Tennessee and 2010 coal ash collapse at the Oak Creek Power Plant in Milwaukee County, Wisconsin – as well as recent smaller-scale spills at Duke Energy facilities in North Carolina such as Sutton and Cliffside – provide vivid illustrations of the dangers of unexpected, catastrophic failure of coal ash impoundments. The lagoons at Riverbend have been rated "High Hazard" by the state and EPA for years because of the likely loss of human life if they were to fail. And as the Charlotte Observer has explained, the risk to Charlotte's drinking water supply from leaving the coal ash in these 80-foot high earthen lagoons

in perpetuity is unacceptable. *"Serious Danger" Looms at Lake; Erase It*, Charlotte Observer, May 26, 2013 (Attachment B).

Moreover, a flood plain map for Mountain Island Lake prepared by Mecklenburg County Storm Water Services at the request of the Mountain Island Lake Marine Commission shows that large portions of the Riverbend coal ash lagoons' berms, in at least three distinct areas, are located within the current flood zone and would be partially submerged under 100-year flood conditions (Attachment C).[1] For this reason as well, the coal ash should not be allowed to remain on the shores of the Lake in perpetuity where floodwaters can weaken the foundation of the dikes.

The documented contamination from the Riverbend coal ash lagoons and the unsustainable, long-term risk they pose to the drinking water supplies of Charlotte-Mecklenburg, Gastonia, Mount Holly, and other municipalities has generated widespread public concern:

- On May 26, 2013, the editorial board of the Charlotte Observer endorsed the removal of all the Riverbend coal ash from the banks of Mountain Island Lake and dry storage away from the water supply. (Attachment B)
- The North Carolina Utilities Commission noted in a recent order in its current Integrated Resource Planning docket that "[n]umerous citizens at the hearings for public witnesses commented that . . . . 'Riverbend's two massive coal ash waste containment dams are leaking dangerous poisons into our drinking water, threatening our health, our water, our Lake and our property values.'" N.C. Utilities Comm'n, Order Requiring Verified Responses, Docket No. E-100, Sub 137 (May 3, 2013) ¶ 5.
- Private citizens have begun monitoring water quality in Mountain Island Lake out of concern about coal ash pollution. *E.g.*, Stuart Watson, *6th Grader Finds High Levels of Arsenic in Mt. Island Lake*, NBC Charlotte, Feb. 16, 2013, (quoting Duke University scientist explaining that "under extreme drought conditions, arsenic which has been building in the sediment outside the water intake could 'erupt' into Charlotte's raw water supply") (Attachment D).
- Citizens' groups have formed to advocate for removal of the Riverbend coal ash from Mountain Island Lake, and citizens also have advocated at Duke shareholders' meetings for its removal.
- In response to this widespread public concern, Duke CEO Jim Rogers recently stated, referring to the Riverbend ash ponds, "We'll ultimately end up cleaning up all that."[2] (*See* Attachment B).

DENR has known about Duke's documented, unlawful pollution of groundwater and of Mountain Island Lake for years, as set forth below, but DENR did not share the public's sense of

[1] A copy of the full map and a detailed section showing the Riverbend coal ash lagoons are provided at Attachment C in the hard copy of these comments. Due to the size of the full map, only the detail view is provided at Attachment C in the email version.

[2] Lisa Rab, *Jim Rogers's Closing Act*, Charlotte Magazine, May 2013, *available at*: http://www.charlottemagazine.com/Charlotte-Magazine/May-2013/Jim-Rogers-Duke-Energy-Closing-Act/.

urgency. Despite years of documentation of the illegal pollution, DENR refused to enforce the law until the deadline to preempt a federal lawsuit by the Foundation against Duke was about to expire.

Having filed its action at the last minute, DENR now has proposed a hasty settlement that would further shield Duke. First, the Draft Consent Order guarantees that no immediate action will be taken to stop the pollution because it directs Duke to embark on an open-ended series of studies. Second, even after all these studies are completed on a totally undefined timeline, the Draft Consent Order does not guarantee any action to stop the unlawful pollution or clean up the existing contamination that has resulted from Duke's illegal activities. The proposal ignores the documentation of the illegal coal ash pollution that led the Foundation to take action and that led DENR to state under oath in its verified complaint that the coal ash pollution at Riverbend presents "a serious danger to the health, safety and welfare of the people of North Carolina" and "serious harm to the water resources of the State."

Fortunately, there is a straightforward solution to these problems. Removing the coal ash from the unlined lagoons and storing it in a dry state away from the Catawba River would stop the illegal seeps and groundwater contamination and eliminate the long-term risk to the Charlotte-Mecklenburg, Gastonia, and Mount Holly drinking water supplies and to the residents of Mountain Island Lake.

Moreover, emptying out obsolete, unlined coal ash lagoons has proven to be an effective approach for another utility on the Catawba River, SCE&G. Under the terms of a 2012 settlement agreement with the Foundation, attached hereto as Attachment E, SCE&G has already transferred 280,000 tons of wet coal ash from its unlined lagoons at its Wateree Station facility to a lined landfill away from the river. SCE&G, *Wateree Station Semi-Annual Status Report, January - June 2013* (July 2013) (Attachment F). Under the settlement, SCE&G agreed to completely remove all 2.4 million tons of coal ash from its lagoons by 2020 and is currently well ahead of schedule. SCE&G's success in moving its coal ash to a lined landfill has garnered significant national press attention from Sumter to Seattle and in the pages of *Businessweek.*

Duke has acknowledged that removal of the ash is a feasible solution to the contamination problems at Riverbend. Duke Energy CEO Jim Rogers told Charlotte Magazine in May, "We'll ultimately end up cleaning up all that," referring to the Riverbend ash ponds. But rather than moving toward what its CEO has acknowledged to be the solution or proposing any alternative solution, Duke has sought instead to justify its illegal pollution and to continue it. A Duke spokesperson has stated repeatedly in the press that the channelized seeps at Riverbend are "part of an earthen dam's 'structural integrity,'"[3] a claim that ignores the clear prohibition against unpermitted point source discharges under the CWA and state law.

[3] Steve Lyttle, *Southern Environmental Law Center, Catawba Riverkeeper Sue Duke Energy*, Charlotte Observer (June 11, 2013), *available at:* http://www.charlotteobserver.com/2013/06/11/4099374/catawba-riverkeeper-sues-duke.html#storylink=cpy.

II. The Draft Consent Order Does Not Deter Illegal Pollution by Duke Energy or Others

As set out below, Duke is guilty of years of illegal pollution of groundwater and surface water adjacent to and within a drinking water reservoir on which hundreds of thousands of people depend. Further, it is undisputed that Duke has known of the pollution for years, yet has done nothing to stop it.

Rather, Duke has knowingly made the pollution worse. Despite knowing about its groundwater contamination and leaks of polluting water into the drinking water reservoir, Duke continued to put more toxic coal ash into the polluting, leaking lagoons; continued to store ash in a wet state in lagoons beside the Lake; and left decades of wet, polluting, toxic coal ash on the banks of this drinking water reservoir.

In at least three ways, the Draft Consent Order is an inadequate response to the magnitude and nature of the law-breaking by Duke and is inadequate to discourage Duke and others from committing similar violations of law in the future.

First, as set out in detail below, the Draft Consent Order does not require prompt cessation of the illegal pollution and does not require Duke to clean it up. Instead, the Draft Consent Order is designed to push off for months or years any actions to clean up the pollution and to stop it. Indeed, the Draft Consent Order leaves open the distinct possibility that Duke may not be required to do anything to stop or clean up its illegal pollution. Duke and other lawbreakers will be deterred from similar illegality in the future only if Duke is required to take immediate action to stop and clean up the pollution. Here, removal of the ash to dry, lined storage away from the Lake is the obvious first step.

Second, the fine imposed for these violations of law makes a mockery of the Clean Water Act and North Carolina law. Duke Energy is the largest utility in America. For years, it has knowingly polluted the groundwater adjacent to and the surface water in the region's drinking water reservoir. Yet, its fine for Riverbend is only $36,000. Its total payment of fines and expenses for both sites is just over $99,000 – transparently designed to be less than $100,000. This fine is an insult to the public resources and legal requirements at issue and to the principle that no person and no corporation is above the law. It is immaterial to Duke Energy.

The inadequacy of these deterrents and the entire Draft Consent Order is underscored by the fact, recited in the Draft Consent Order, that DENR has spent less than $3,000 on its investigation and oversight of Duke's pollution of Mountain Island Lake and the groundwater adjacent to it.

Third, this Draft Consent Order lets Duke get away with violating the law without admitting to and accepting responsibility for its illegal behavior. The Draft Consent Order concludes that it is entered into "without admission of the non-jurisdictional allegations in the Complaints." In other words, Duke does not admit to one drop of its documented illegal pollution of the public water supplies. To add insult to injury, DENR and Duke ask the Court to endorse this non-admission. When a lawbreaker is allowed to enter into a deal to resolve its

legal violations without suffering the maximum penalty (here, the maximum penalty under the Clean Water Act is $37,500 per violation per day, plus many other consequences), the lawbreaker normally must acknowledge its illegal activity and its responsibility for the consequences of its illegal actions. Here, DENR has set out, under oath, that indeed Duke Energy has violated the law and has done so for years. The proof of Duke Energy's illegal activities is overwhelming. Duke Energy should not be allowed to gloss over its illegal conduct and the consequences of its years of knowing illegal pollution without fully acknowledging its wrongdoing.

The message sent by the Draft Consent Order, then, is this: At least if you are a powerful corporation, it makes financial sense to illegally pollute. DENR will watch and take no action for years. If a citizens group takes action, DENR will file a pre-emptive suit. It will do what it can to stop the citizens from taking part in the enforcement action. Then, it will enter into a quick settlement with you, after investing practically no resources, that imposes a minimal fine, does not require you to do anything to stop or clean up the pollution, pushes off into the future as far as possible any required action to stop or clean up the pollution, and leaves open the possibility that you will not have to do anything to stop or clean up the pollution. And the law enforcement agency, DENR, will give you amnesty for all your illegal activity without requiring you to admit your wrongdoing and accepting responsibility for it.

In other words, the Draft Consent Order undercuts the integrity of North Carolina's natural resources, the Clean Water Act, and North Carolina law; the deterrent effect of law enforcement; and public confidence in governmental and law enforcement officials.

III. The Draft Consent Order Allows for Indefinite Delay by Duke and DENR

The Draft Consent Order is structured to avoid any definite timeline for Duke to comply. A quick glance at the document shows definite deadlines at the beginning of virtually every paragraph of the Riverbend Compliance Activities section, ¶¶ 51-66, which give the superficial impression that the Draft Consent Order requires prompt action on a definite timeline. But nothing could be further from the truth. In fact, the Draft Consent Order intersperses each of its "deadlines" with undefined periods in which Duke and/or DENR have complete discretion to delay even the inadequate assessment activities set forth in the proposed settlement.

Thus, Duke is required to submit within 60 days (two months) a "proposal and schedule" to DENR for determining the naturally occurring concentrations of substances in the groundwater. Draft Consent Order ¶ 52. But the duration of that schedule is left entirely up to Duke. Moreover, once a final report is finally complete, DWQ has an undefined period of time in which to "determine" the concentration of naturally occurring substances. *Id.* ¶ 53. Then, Duke has 120 days (another four months) to submit another "report," which triggers another open-ended, undefined period of time in which DWQ is to "determin[e] which substances and wells exceed the groundwater standard." *Id.* ¶ 54. Within 60 days (another two months) of that determination, Duke would submit a "plan to conduct a site assessment," but again the schedule for actually *conducting* that assessment is left entirely up to Duke. *Id.* ¶ 55. Finally, the timing of any corrective action is left totally undefined. Thus, the timeframe in which all these activities will take place is completely open-ended.

The same holds true for the Draft Consent Order's handling of the seeps at Riverbend. For example, Duke has a 180-day (six months) deadline to submit a "plan to determine whether engineered channel outfalls or seep discharges have reached surface waters of the Catawba River basin and are causing violations of water quality standards" – but there is no deadline at all for actually making that determination. *Id.* ¶ 59.

Thus, the structure of the Draft Consent Order reinforces the impression that it is designed to shield Duke from the numerous legal requirements to take prompt action to stop its illegal pollution, as set forth below.

IV. Specific Legal Deficiencies of the Draft Consent Order

Any legally valid settlement must require prompt action to stop the illegal coal ash pollution at Riverbend. North Carolina's water pollution statute provides for consent orders that "alleviate or eliminate the pollution," but this proposal does neither. N.C. Gen. Stat. § 143-215.2 (a). Furthermore, because the Draft Consent Order fails to prevent or abate the known violations of law at issue in this case, the Court cannot approve it. "Upon a determination by the court that the alleged violation of the provisions of this Part or the regulations of the Commission has occurred or is threatened" – which is not in dispute in this case – "the court *shall* grant the relief *necessary to prevent or abate the violation* . . . ." N.C. Gen. Stat. 143-215.6C (emphasis added). The Draft Consent Order fails to comply with these mandatory directives to remedy the illegal pollution, and it also fails to comply with the following specific legal requirements that dictate action to stop the documented seeps and groundwater contamination at Riverbend.

A. The Draft Consent Order Fails to Stop the Unpermitted Seeps Discharging into Mountain Island Lake

Duke and DENR already know that the Riverbend seeps discharge directly into Mountain Island Lake without authorization from Duke's NPDES permit or any other permit. When DENR inspected the seeps in December 2012, it specifically observed that all the seeps it identified at Riverbend discharge into Mountain Island Lake. Memorandum from M. Allocco and A. Pitner to "NPDES Permitting" (Dec. 21, 2012). Indeed, public dam inspection reports have identified numerous seeps at Riverbend at least as early as 2005, noting that seeps flowing from the toe of the dam "discharged into the Catawba River." A Duke spokesperson admitted that "[w]e have routinely informed the state of the seepage occurring at the toe of our ash dams."[4] The Foundation sent DENR detailed information about the seeps in November 2012 and identified the precise GPS coordinates of the discharges into Mountain Island Lake in its March 26, 2013 Notice of Intent letter sent to Duke and DENR pursuant to the Clean Water Act ("CWA"). Without question, then, these seeps are unpermitted point source discharges to waters of the state and the United States, in violation of state law and the CWA.

[4] Amanda Memrick, "Environmental Group Threatens Lawsuit Against Duke Energy," *Gaston Gazette* (Mar. 27, 2013), *available at:* http://www.gastongazette.com/news/local/environmental-group-threatens-lawsuit-against-duke-energy-1.117896.

DENR stated under oath in its verified complaint that "Defendant's unpermitted seeps from the [Riverbend] Facility are violations of N.C. Gen. Stat. §§ 143-215.1(a)(1) and (a)(6)," which prohibit unpermitted discharges to waters of the state. Compl. ¶ 65. DENR stated that "Defendant's violations of N.C. Gen. Stat. §§ 143-215.1(a)(1) and (1)(6) for the unpermitted seeps . . . pose[] a serious danger to the health, safety and welfare of the people of the State of North Carolina and serious harm to the water resources of the State." *Id.* ¶ 67. DENR asked the court to issue an injunction requiring Duke to "abate the violations" of N.C. Gen. Stat § 143-215.1 and its NPDES permit from the seeps. *Id.* Prayer for Relief ¶ 2.

Therefore, it is mind-boggling that the proposed settlement treats the Riverbend seeps as though Duke and DENR have no idea whether the seeps discharge into Mountain Island Lake. The proposal says Duke will be required to "propose corrective action measures" only "*if* the investigations described in this Section, in combination with any other appropriate information, demonstrate that corrective action is required to bring the Riverbend Station into compliance with N.C. Gen. Stat. §[] 143-215.1(a)(1)," which prohibits making "any outlets into the waters of the State" without a permit. Draft Consent Order ¶ 65 (emphasis added). But as explained above, DENR has recently verified that numerous unpermitted seeps are discharging into Mountain Island Lake, and thus are violating Section 143-215.1(a)(1).

Accordingly, the plan set forth in ¶¶ 57-64 of the proposal is totally inadequate because it ignores all of Duke's ongoing, documented violations of law. Instead, the plan for the seeps gives Duke 180 days (six months) to "submit *a plan to determine whether* engineered channel outfalls or seep discharges have reached surface waters of the Catawba River basin . . . ." Draft Consent Order ¶ 59. In other words, there is no set deadline for Duke even to identify its ongoing, unpermitted discharges to Mountain Island Lake; the only deadline is for the submission of a plan, which itself could give Duke an indefinite amount of time to "determine" the plain facts about the seeps that are already known and well documented, including in DENR's own inspection memorandum: the seeps are discharging into Mountain Island Lake without a permit.

Moreover, if Duke actually identifies any unpermitted discharges to surface waters as a result of this open-ended process, the Draft Consent Order – in a flat contravention of the law – offers Duke the option of continuing the violate the CWA and N.C. Gen. Stat. § 143-215.1(a)(1). The CWA forbids unpermitted point source discharges of any pollutant, 33 U.S.C. 1311(a), and thus requires that such discharges either be stopped or be permitted under the NPDES program. But the proposal offers a third option in addition to stopping or permitting the discharges: Duke may "address" the seeps using "BMPs" or "best management practices."[5] Draft Consent Order ¶ 60(c).

There are several problems with this BMP option for "address[ing]" the seeps. First, the BMP option for these seeps would authorize unpermitted point source discharges in violation of the CWA, 33 U.S.C. § 1311(a). These streams of contaminated water are point source discharges to surface waters of the United States, but by "address[ing]" them through BMPs,

[5] Indeed, as written the Proposal allows Duke to merely "propose alternate BMPs subject to approval by DWQ," ¶ 60(d), but nothing in the settlement appears to require Duke to implement these alternate BMPs.

Duke would have the option to continue discharging without a permit and thus evade public comment and the opportunity for a public hearing and for judicial review, along with all the other requirements of the state NPDES permitting program, 33 U.S.C. § 1342(b). BMPs are authorized only to manage *non-point* sources such as storm water runoff, not channelized point source discharges: "Best Management Practice (BMP) means a structural or nonstructural management-based practice used singularly or in combination to reduce *nonpoint source inputs* to receiving waters in order to achieve water quality protection goals." 15A N.C.A.C. 2B.0202(7) (emphasis added).

Second, paragraph 60(c) refers to paragraph 61, which contemplates BMPs "designed to prevent unpermitted discharges of *unpermitted* pollutants to surface waters." This language is ambiguous, but by stating that only unpermitted discharges of "unpermitted" pollutants would be prevented, it implies that unpermitted discharges of "permitted" pollutants could be authorized by such BMPs – for example, if the pollutant were covered by the Riverbend NPDES permit for the permitted outfalls at Riverbend, and if DENR or Duke determined that the unpermitted seep containing that pollutant would not cause a violation of water quality. By leaving open the possibility of unpermitted discharges of at least some pollutants, the Draft Consent Order again violates the CWA. Unpermitted point source discharges of "*any* pollutant" are prohibited by CWA without regard to whether the pollutants are "permitted" or "unpermitted" (whatever that means), and without regard to whether the discharge violates water quality standards. 33 U.S.C. § 1311(a) (emphasis added); N.C. Gen. Stat. § 143-215.1(a)(1).

In addition to the unauthorized use of BMPs to allow Duke to continue its point source seep discharges without a permit, the Draft Consent Order fails to require adequate monitoring of the seeps. The Foundation's own sampling has revealed concentrations of cobalt up to 52 times the standard in the seeps, as well as strontium, yet neither of these substances would be included in sampling of the seeps under the Draft Consent Order, ¶¶ 57, 59(b). For the same reason, cobalt and strontium should be added to the substances required to be sampled from the groundwater monitoring wells and permitted Outfall 002 at Riverbend.

As well, the proposed settlement leaves open the possibility that the illegal, unplanned flows of effluent from leaks that have sprung unpredictably from the earthen dikes could be made legitimate by permit. The existing permit and all prior ones are the result of the full agency process, public review, public comment, and the procedures required by the Clean Water Act and North Carolina law. These illegal flows of polluted water into Mountain Island Lake, forbidden by the existing permit, cannot be made legitimate by totally changing the permit to allow contaminated water to pop out of this purported wastewater treatment facility and flow into the Lake. It is inconceivable that a permitted wastewater treatment facility would be allowed to repeatedly open up leaks and discharge polluted water from the supposed wastewater treatment lagoons into a drinking water reservoir. This proposed option is not law enforcement or pollution elimination at all, but instead an option for the law enforcement agency to try to find a way to make unlawful and polluting activities "permitted" and perpetual. A Court should not approve or endorse this approach of papering over illegal pollution as part of a supposed Order of the Court addressing illegal pollution of a drinking water reservoir, and this stratagem should not be adopted by a state agency that has the responsibility of enforcing the law and protecting the State's natural resources and the public interest.

Finally, the Draft Consent Order leaves open the possibility that some seeps will not be tested at all and, presumably, will not be addressed. ¶ 57. There is no apparent reason why testing a seep would be "infeasible." Under the permit, the Clean Water Act, and North Carolina law, such a seep must be stopped. There is no exception when the testing is "infeasible."

B. The Draft Consent Order Fails to Require Immediate Action to Remove the Source of the Groundwater Contamination

In its complaint, DENR asked the court to enter a mandatory injunction to require Duke to abate the violations of groundwater standards at the compliance boundary at Riverbend. Compl., Prayer for Relief ¶ 2. Yet the Draft Consent Order requires no action to abate these longstanding, documented violations.

Groundwater monitoring at Riverbend has shown significant exceedences of groundwater standards for several coal ash constituents at the compliance boundary since at least 2010. Those exceedences should have triggered immediate action, but Duke and DENR have done nothing to stop the contamination. Similarly, the proposed settlement requires only further study and assessment, rather than legally-required action to stop the documented pollution.

There are numerous layers of unnecessary delay built into the groundwater section of the Draft Consent Order dealing with Riverbend. First, the assessment proposed by the Draft Consent Order, ¶ 55, which is itself the culmination of a lengthy, undefined period of preparatory assessments, appears to be entirely redundant. As the Draft Consent Order itself acknowledges, ¶ 28, Duke has already conducted just such a groundwater assessment of the Riverbend site to determine background levels and assess the flow of contaminated groundwater into Mountain Island Lake (the "Groundwater Assessment"). It was submitted to DWQ on May 31, 2013. An extended, open-ended period of study that would do nothing more than replicate the existing groundwater assessment is utterly unnecessary and a blatant attempt to allow Duke to delay action indefinitely.

Moreover, the Groundwater Assessment, as well as a subsequent "2012 Supplemental Groundwater Monitoring Report" and accompanying "2012 Groundwater Modeling Report" prepared by UNC Charlotte for Duke (collectively, the "Groundwater Modeling Reports"), demonstrate exceedences at multiple monitoring wells and modeled locations along the compliance boundary at Riverbend.

Duke has numerous exceedences of the 2L standards at the compliance boundary. And as discussed below, it also has numerous exceedences of the background levels found in what both Duke and DENR consider to be the background wells at the Riverbend site. A collection of internal DENR groundwater monitoring data identifies monitoring wells MW-7D and MW-7S as "Background" wells for Riverbend (Attachment G). And the November 2012 Proposed Groundwater Assessment Work Plan prepared for Duke by its consultant HDR and submitted to DENR (the "Groundwater Work Plan") and Groundwater Assessment both specifically note that "Monitoring wells MW-7SR and MW-7D are considered by Duke Energy to represent background water quality." Indeed, the Groundwater Assessment concludes that "additional

background monitoring wells *are not needed*" at Riverbend and that monitoring wells "MW-7SR and MW-7D adequately represent background water quality." Groundwater Assessment at 28 (emphasis added). Thus, both Duke and DENR agree that background levels are already represented by the monitoring wells at Riverbend.

It should be noted that the consultant's report does not conclude that monitoring wells MW7SR and MW7D are valid background wells but notably leaves open the possibility that they overstate the background levels of the pollutants. Indeed, the evidence shows that these wells are likely affected by contamination at the site. The consultants very carefully note that these wells "are considered" background wells by Duke Energy. This is very conspicuous and careful wordsmithing by a consultant hired by Duke Energy. Attached is a report from an expert hydro-geologic consultant explaining that, in fact, these so-called "background" wells are in fact likely contaminated by Duke Energy's coal ash pollutants. Exhibit H.

But even using these wells, only considered by the law breaker to be background wells, there are documented exceedences. Taking Duke Energy's own report and using these wells as the background wells, the only question should be whether the data obtained from the compliance boundary wells and the modeled compliance boundary data show exceedences beyond the levels in the MW-7 background wells. They do. The Groundwater Assessment analyzes the "statistically significant increase" (i.e., the difference) between the MW-7 wells and the compliance boundary wells, and determines that wells 8S, 8I, 8D, 11SR, 11DR, and 15 show statistically significant exceedences above background concentrations. *Id.* at 43-44. And the Groundwater Modeling Reports find exceedences at the compliance boundary for wells 9, 10, and 13. 2012 Supplemental Groundwater Monitoring Report, Table 5. The Groundwater Assessment concludes that the compliance boundary wells and the additional wells inside the compliance boundary are all properly constructed and are not contributing to the exceedences. *Id.* at 28-30.

That should be the end of the inquiry. Duke may not pollute the groundwater above the 2L standards at the compliance boundary, unless the background levels are higher than the 2L levels, in which case Duke may not pollute above the background levels. 15A N.C.A.C. 2L .0202(b)(3). Here, Duke plainly has done both in numerous wells and modeled wells, even by its own calculations. Moreover, a detailed comparison of iron, manganese, and pH concentrations in the compliance boundary wells between December 2010 and February 2013 reveals at least *46 separate sampling results* for these substances that were higher than both the 2L standard *and* the levels in the MW-7SR and MR-7D wells for a given sampling period. Thus, there are already numerous documented exceedences at the compliance boundary that cannot be disputed and that require immediate action.

The attached expert hydro-geologic report further analyzes the report of Duke's consultant and concludes:

> The reader is asked to believe that the presence of unlined impoundments and waste storage area, conveniently undefined hydraulic gradients, poor sampling technique, statistical verification of significant differences from 'background", and groundwater modeling that predicts concentrations above 2L

> Standards all add up to indicate that the observed exceedances are naturally occurring. The report essentially asks the reader to ignore the available information and believe the story that Duke Energy chooses to tell. Exhibit H.

The analysis set out in the attached report demonstrates that the report from Duke's consultant does not provide any basis whatsoever for delaying immediate action to clean up the coal ash contamination at Mountain Island Lake.

The Draft Consent Order is also deficient because it allows Duke to make the determination whether any constituents exceed background levels: "Duke Energy Carolinas shall submit a report evaluating whether or not substances in compliance boundary wells and modeled values at the compliance boundary exceed the groundwater standards." Draft Consent Order ¶ 54. This provision is absurd. First, the polluter should play no role in determining whether or not it is violating the law.

Second, this entire step is unnecessary. It would come *after* DWQ has determined the naturally occurring concentrations (something that itself is unnecessary given DENR and Duke's apparent agreement that current wells accurately represent the background levels; even though this agreement overstates the background level of pollutants, there are exceedences even using those suspect background levels). When the naturally occurring concentrations have been determined, it is self-evident that levels above those concentrations at the compliance boundary violate the 2L rules. *See* 15A N.C.A.C. 2L .0202(b)(3) ("Where naturally occurring substances exceed the established standard, the standard shall be the naturally occurring concentration as determined by the Director."); *id.* at .0106(c) (immediate action and corrective action requirements triggered by concentration of a substance in excess of the standard). Thus, there is no need for a 120-day (four months) "report" from Duke to "evaluate" whether the background levels at the compliance boundary have been exceeded (¶ 54) and there is no need for a subsequent indefinite period for DWQ to "determin[e]" that a groundwater constituent exceeds the groundwater standard (¶ 55). These steps appear to be entirely superfluous and designed for further delay and avoidance of action.

Moreover, Duke has admitted publicly that its Riverbend coal ash lagoons have caused exceedences of the groundwater standards. Its spokesperson stated that "some" of the pollutants "likely came from the ash lagoons."[6] Any contamination at the compliance boundary above the applicable standard is prohibited and requires immediate action and corrective action under the 2L Rules.

Further, the Draft Consent Order completely ignores the "immediate action" requirement of Section .0106(c)(2). When a constituent at the compliance boundary exceeds the standard or background level, the 2L groundwater rules require that Duke "*shall . . . take immediate action* to *eliminate* the source or sources of contamination." 15A N.C.A.C. 2L .0106(c)(2) (emphasis added). Yet the Draft Consent Order specifies instead that after determining that an exceedence at the compliance boundary has occurred, Duke is merely required to submit "a plan to conduct a

[6] Bruce Henderson, *Duke Energy, State To Settle Ash Lawsuit*, Charlotte Observer (July 15, 2013), *available at:* http://www.charlotteobserver.com/2013/07/15/4166607/duke-energy-state-to-settle-ash.html#storylink=cpy.

site assessment in accordance with 15A NCAC 2L.0106(g)." Draft Consent Order ¶ 55. While the 2L rules do require a site assessment, the contents of which are set forth in Section .0106(g), the assessment requirement itself is found in Section .0106(c)(3), and it is distinct from Section .0106(c)(2)'s logically prior requirement for *immediate action* to *eliminate* the source of contamination.

Similarly, paragraph 55 states that "Duke . . . shall comply with the corrective action requirements of 15A NCAC 2L.0106," but the corrective action requirements of Section .0106 (contained in .0106(c)(4)) are also distinct from the immediate action required by Section .0106(c)(2) to eliminate the source of the contamination prior to the more protracted corrective action process of remediating the existing contamination.

Thus, although it purports to require compliance with Section .0106, the Draft Consent Order actually contravenes this rule by failing to require one of its key provisions: immediate action to eliminate the source of the pollution as mandated by Section .0106(c)(2).

Moreover, if there were any doubt about the requirement for immediate action, North Carolina's groundwater regulations separately specify that "[r]emoval, or treatment and control" of any primary or secondary pollution source is required "*prior to or concurrent with*" *any* assessment activities. 15A N.C. Admin. Code 2L.0106(f)(3), (4) (emphasis added). Section .0106(f) not only mandates specific action – removal, or treatment and control, of pollution sources – it also dictates a specific timeframe for implementation. As explained by the Environmental Management Commission ("EMC") in a recent court filing, "corrective action following discovery of an unauthorized release of a contaminant includes those measures set forth in subsection 15A NCAC 2L.0106(f). . . . Such measures are to be implemented '*prior to or concurrent with the assessment required in subsection (c).*'" Brief for Respondent, *Cape Fear River Watch,* et al. *v. N.C. Envtl. Mgmt. Comm'n*, No. 13-CV-000093 (Wake Co., Apr. 10, 2013), at 17-18 (emphasis added).

However, DENR's proposed settlement with Duke ignores the EMC's position. The Draft Consent Order requires merely the possibility of "assessment" of the contamination, ¶ 55, but requires no action to remove or control the source of this pollution *prior to or concurrent with* that assessment, as required by Section .0106(f). *See* Draft Consent Order ¶ 55. DENR's refusal to abide by this mandate to remove or control the sources of ongoing groundwater contamination contravenes this legal requirement. *See also* 15A N.C. Admin. Code 2L.0106(b) ("Any person conducting or controlling an activity which results in the discharge of a waste[7] or hazardous substance or oil to the groundwaters of the State . . . *shall take immediate action to terminate and control the discharge*" (emphasis added)). The protective requirement of Section .0106 to stop the contamination of groundwater immediately is a necessary first step for the subsequent requirements of Section .0106 to implement longer-term corrective action. It would make no sense to require corrective action without also terminating the discharge. Yet the proposed settlement ignores the plain language of this section of the groundwater rules.

[7] The statutory definition of the "discharge of waste" includes "discharge [or] leakage" of any "liquid, solid . . . or other waste substance or a combination thereof resulting from any process of industry" to "waters of the state," which includes groundwater. N.C. Gen. Stat. §§ 143-213(9), (18).

Accordingly, the Draft Consent Order's plan to require only open-ended groundwater studies – without any action to remove or control the source of the pollution – violates the plain requirements of the 2L groundwater rules.

Conclusion

Pursuant to N.C. Gen. Stat. § 143-215.2 (a1)(2), the Foundation requests a public hearing on the Draft Consent Order, and requests to receive notice of any subsequent drafts or final versions of the Consent Order and any additional opportunities for public comment.

The Draft Consent Order is legally inadequate and cannot be approved by a court of law. It is structured to facilitate open-ended delay, and it ignores known, ongoing violations of law by pretending that months or years of study are required to establish facts that are already well-documented – such as the fact that the Riverbend seeps are discharging without a permit into Mountain Island Lake. Because it insulates Duke from complying with the law using layers of delay and obfuscation of known, ongoing violations, the Draft Consent Order lacks legitimacy. It also fails to comply with state laws and the Clean Water Act by allowing Duke to continue point source discharges without a permit and to evade the mandate of the 2L groundwater rules to take immediate action to stop the coal ash lagoons from contaminating the groundwater at Riverbend.

For all these reasons, DENR must restructure the settlement to require prompt, definite compliance with all applicable requirements of state and federal law, including the prohibition on unpermitted point source discharges and the immediate action requirements of the 2L groundwater rules. Thank you for your consideration of these comments.

Sincerely,

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Attachments

cc: Matthew Hicks, U.S. EPA
Hon. Roy Cooper, N.C. Dept. of Justice